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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,383	07/30/2001	Stefaan Van Dyck	4532670/70200	9962
7590	03/22/2004		EXAMINER	
Kent A. Herink The Financial Center 666 Walnut Street, Suite 2500 Des Moines, IA 50309-3993			OH, TAYLOR V	
			ART UNIT	PAPER NUMBER
			1625	

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/918,383	<b>Applicant(s)</b> DYCK, STEFAAN VAN	
	<b>Examiner</b> Taylor Victor Oh	<b>Art Unit</b> 1625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

The finality of the previous Office Action issued on 12/16/2003 is hereby withdrawn due to new ground of rejections.

Applicant's arguments with respect to claims 1 and 3-13 have been considered but are moot in view of the new ground(s) of rejection.

The Status of Claims

Claims 1 and 3-13 are pending.

Claims 1 and 3-13 have been rejected.

***Claim Objections***

Claim 4 is objected to because of the following informalities: the phrase "selected from the group consisting of of " is recited. There is an extra "of" in claim 4. An appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 6, 7 and 10, the phrase "the base comprises" is recited. This expression "comprises" is vague and indefinite. This is because what the meaning of

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the terms "the base comprises" is that the base may contain many additional components. The expression of "the base" would mean a single product. An appropriate correction is required.

In claim 8, the phrase "the alkaline-earth metal bases comprise" is recited. This expression is vague and indefinite. This is because what the meaning of the terms "the alkaline-earth metal bases comprise" is that the bases may contain many additional components besides the bases. An appropriate correction is required.

In claim 9, the phrase "the oxides of alkaline-earth metals comprise" is recited. This expression is vague and indefinite. This is because what the meaning of the terms "the oxides of alkaline-earth metals comprise" is that the oxides of the metals may contain many additional components besides the oxides of the metals. An appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 3-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (U.S. 5,019,148) in view of Mori et al (U.S. 5,935,635).

Moore discloses a method of producing homogeneous mineral granules of animal feed supplements by commingling acids such as acetic, propionic, citric acid (see col. 6 ,lines 36-39) and bases such as the oxides, hydroxides of the alkaline earth metals and hydroxides of alkali metals (see col. 6 ,lines 45-49) to form a mixture in an exothermic reaction (see col. 4 ,lines 8-10), during which water is evaporated from the salts formed. Furthermore, the transient fluid adhesive salt formed by the reaction of the acids and bases provide 50% or more of the final weight of the granules (see col. 6 ,lines 7-11). Also, for the coating of granules, 0.5 and 4.0 % of fine inert solids may be applied (see col. 7 , lines 8-12).

The instant invention ,however, differs from the Moore reference in that the carrier is comprised of silica gel and the weight ratio of carrier to organic acid is in the range of from 1:1 to 3:1.

Mori et al discloses a feed additive for animal feed containing amino acids and other fermentation product and a caking preventive agent such as silica gel (see col. 3 , line 6) with a range of from 0.1 to 5 % by weight(see col. 2 , lines 26-31).

Concerning the weight ratio of carrier to organic acid in the range of from 1:1 to 3:1, In Example 1, Moore indicates that the percentage of the organic acid is 57% of the final mixture; the rest of the final product (43 %) may be considered as a carrier (see col. 8 , Example 1). Although the claimed ranges and the prior art do not overlap,

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concentration is well understood by those of ordinary skill in the art to be a result-effective variable especially when attempting to control selectivity of a chemical process. Furthermore, the limitation of a process with respect to ranges of pH, time, temperature, and concentration does not impart patentability to a process when such values are those which would be determined by one of ordinary skill in the art in achieving optimum operation of the process.

Moore discloses expressly the method of producing homogeneous mineral granules of animal feed supplements by commingling acids and bases along with the addition of the inert solid. And Mori does teach the feed additive for animal feed containing amino acids and other fermentation product and the caking preventive agent such as silica gel, thereby improving flowability and anti-caking tendency of the obtained granular feed. Both have shared the same utility of making the animal feed. Therefore, it would have been obvious to the skillful artisan in the art to have motivated to incorporate the teaching of Mori's anti-caking silica gel into Moore's method of producing homogeneous mineral granules of animal feed supplements because the addition of Mori's anti-caking silica gel to Moore's method does improve the flowability and anti-caking tendency of the obtained granular animal feed with an expectation of a similar success as shown in the Mori reference.

#### **Applicants' Arguments**

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The Moore process results in a product that can be properly be characterized as granular only after aggressive comminution, whereas the process of the current invention results immediately in a granular product.

The amendment filed 2/20/2004 has been fully considered, but are not persuasive. With respect to applicants' argument, the examiner has noted applicants' argument. However, in comparing the applicants' process with the Moore process, there is not much difference in producing an granular organic acid salt product between the prior art process and the current invention process regardless of the conditions of the comminution process (aggressive process vs. gentle process); the current invention employs stirring, whereas the Moore process uses an agitator equipped with rotating blades.

In both processes, the acids and bases are reacted to produce the granular product by means of the mechanically rotating device. Therefore, the prior art is still relevant to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached from 8:30 am-5:00 pm on Monday through Friday .

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mckane can be reached on 571-272-0699 on 7:00 am-6:00 pm on Monday through Thursday.

*Joseph Mckane*  
3/18/54

*Ba K. Trinh*

BA K. TRINH  
PRIMARY EXAMINER  
GROUP 1200-1625